

REMARKS

Reconsideration and allowance of the present patent application based on the following remarks are respectfully requested.

By this Amendment, claims 1, 12, 22 and 25 are amended. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-34 will remain pending in the patent application.

Entry of the Amendment is proper under 37 C.F.R. §1.116 as the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not present any new issues that would require further consideration and/or search as the amendments merely amplify issues discussed throughout the prosecution; (c) do not present any additional claims without canceling a corresponding number of claims; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of the Amendment is thus respectfully requested.

As a preliminary matter, Applicant notes that independent claim 11 has not been rejected, nor objected to, in the Office Action. Accordingly, Applicant respectfully submits that this claim is in condition for allowance. In the event the Examiner does not allow this claim in the next communication from the Office, Applicant respectfully requests that a new non-final Office Action must be issued setting a new period for reply. *See* MPEP §706.07 and 37 C.F.R. §1.113.

Claims 1-12, 14-20, 22, 23 and 25-34 were rejected under 35 U.S.C. § 102(b) based on U.S. Pat. No. 5,345,557 to Wendt. The rejection is respectfully traversed.

Claim 1 recites a sensor arrangement comprising, *inter alia*, “a plurality of sensor elements, each sensor provided as an integrated circuit in the substrate; electronic circuitry comprising: i) a processing circuit arranged on the substrate and connected to at least one of the sensor elements, the processing circuit being configured to process a signal generated by the at least one of the sensor elements; ii) an input/output interface arranged on the substrate and connected to the processing circuit; and a power supply unit arranged on the substrate and configured to supply operating power only to electronic circuitry associated with sensor elements which are in use.”

These aspects of claim 1 are amply supported by the embodiments disclosed in the present application. As a non-limiting example, one embodiment shown in Figure 2 of the present invention teaches a silicon substrate 1 that includes various sensors and components arranged thereon. The silicon substrate 1 includes a plurality of sensors 2, a processing unit

5, a memory 6, an input/output 8 and a power supply 9. The substrate 1 is constructed and arranged to be received in a lithographic apparatus to sense various properties (e.g., optical properties) of the apparatus. As shown in the embodiment of Figure 2, all sensors 2 on the substrate 1 are connected to the processing circuit for processing the sensor signals. *See* present application at paragraph 50.

There is nothing in the cited portions of Wendt that remotely discloses, teaches or suggests these aspects of claim 1.

By way of review, the cited portions of Wendt disclose a digital computer that includes a processor 1, an energy supply 2, a display 4, a mass storage 5, an image sensor 6, a voice analysis 7 and a voice synthesis 8. *See* Wendt at Figure 1. The processor 1 is an integrated chip that includes metallic carrier layers 12, 16, a light guide layer 13, a photocell 14, a circuit carrier layer 15 and dielectric layers 13', 14', 14'', 15' and 15''. *See* Wendt at Figure 2 and col. 3, lines 62-68 and col. 4, lines 1-18. Figure 3 of Wendt shows the arrangement of the circuit layer 15. It includes a processor unit 17, a supply unit 18, a memory 19, a direct-access memory 20, a bus coder 21, a bus decoder 21, an optical emitter 23 and an optical receiver 24. *See* Wendt at col. 4, lines 45-59.

The Office refers to Figures 1 and 6 and col. 3, lines 34-47 of Wendt as allegedly disclosing, teaching or suggesting the substrate, a processing circuit, an input/output interface and a power supply unit, as recited in claim 1. The Office further refers to col. 9, lines 50-53 of Wendt as allegedly disclosing, teaching or suggesting the plurality of sensors, as recited in claim 1. Applicant respectfully disagrees.

Col. 9, lines 50-53 of Wendt discloses a piezo-pressure sensor and a resistance-temperature sensor that are part of a circuit that includes a digital converter 123, a modulator 124, a diode 125, a receiving diode 126. That said, there is nothing in Wendt that remotely discloses, teaches or suggests that the piezo-pressure sensor and the resistance-temperature sensor of Wendt would be arranged on the same substrate that includes the digital converter 123, the modulator 124, the diode 125, the receiving diode 126 discussed at col. 9, lines 50-53 or the processor unit 17, the supply unit 18, the memory 19, the direct-access memory 20 discussed at col. 3, lines 34-47 of Wendt. Nor is there any teaching or suggestion in Wendt that the piezo-pressure sensor and the resistance-temperature sensor are provided as an integrated circuit, as recited in claim 1. Applicant respectfully submits that the Office has combined various embodiments of Wendt that are unrelated to reconstruct the claimed invention. This is improper and insufficient to establish a *prima facie* rejection. Indeed,

“unless a reference discloses within the four corners of the document not only all of the limitations claimed but also *all of the limitations arranged or combined in the same way as recited in the claim*, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.” *Net MoneyIN, Inc. v. VeriSign, Inc. et al.*, Slip Op. pg. 17-18 (Fed. Cir., October 20, 2008), (emphasis added).

With this said, it is respectfully submitted that the processor 1 of Wendt, which is described as an integrated chip, does not include “a processing circuit arranged on the substrate and connected to at least one of the sensor elements, the processing circuit being configured to process a signal generated by the at least one of the sensor elements,” as recited in claim 1. Along these lines, to the extent the Office would consider the photocell 4 of the processor 1 a sensor, Applicant respectfully submits that such a photocell 4 is merely configured to supply power to the supply unit 18. *See* Wendt at col. 4, lines 51-52. Therefore, any signal generated by the photocell 4 is not, in any way, processed by the processor unit 17 of Wendt.

Thus, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over the cited portions of Wendt.

Claims 2-10 are patentable over the cited portions of Wendt at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Applicant respectfully submits that claim 11 is patentable over Wendt for at least the same reasons as allowed claims 21 and 24. Specifically, claim 11 recites a sensor arrangement comprising, *inter alia*, “iv) a power supply unit said power supply unit configured to supply operating power to at least one other component of the sensor arrangement, wherein the power supply unit is arranged to convert a wireless signal having a first predetermined frequency into a supply voltage for a first part of the sensor arrangement and to convert wireless energy having a second predetermined frequency into a supply voltage for a second part of the sensor arrangement different from the first part.” As noted at page 4 of the Office Action, Wendt does not disclose, teach or suggest these aspects of claim 11. Accordingly, claim 11 is patentable over Wendt.

Claim 12 is patentable over the cited portions of Wendt for at least similar reasons as provided above for claim 1 and for the features recited therein. For example, the cited portions of Wendt do not disclose, teach or suggest “one or more sensor arrangements, each sensor arrangement having: i) a plurality of sensor elements, each sensor element provided as an integrated circuit in the substrate and associated with electronic circuitry that comprises: a)

a processing circuit arranged on the substrate and connected to at least one of the sensor elements, the processing circuit being configured to process a signal generated by the at least one of the sensor elements; and b) an input/output interface arranged on the substrate and connected to the processing circuit; and ii) a power supply unit arranged on the substrate and configured to supply operating power only to electronic circuitry associated with one or more of the plurality of sensor elements which are in use.”

Equally important is the fact that the cited portions of Wendt are silent as to a lithographic apparatus. According to claim 12, the one or more sensor arrangements are included in a lithographic apparatus. Applicant respectfully submits that the Office has not considered this aspect of claim 12. Thus, for this additional reason, claim 12 is patentable over the cited portions of Wendt.

Claims 13-20 are patentable over the cited portions of Wendt at least by virtue of their dependency from claim 12 and for the additional features recited therein.

Claim 22 is patentable over the cited portions of Wendt for at least similar reasons as provided above for claim 1 and for the features recited therein. For example, the cited portions of Wendt do not disclose, teach or suggest a method comprising, *inter alia*, “removing the sensor arrangement from the device, wherein the sensor arrangement comprises: i) a substrate; ii) a plurality of sensor elements, each sensor element provided as an integrated circuit in the substrate and associated with electronic circuitry comprising that comprises: a) a processing circuit arranged on the substrate and connected to at least one of the sensor elements, the processing circuit being configured to process a signal generated by the at least one of the sensor elements; and b) an input/output interface arranged on the substrate and connected to the processing circuit; and ii) a power supply unit arranged on the substrate and configured to supply operating power only to electronic circuitry associated with one or more of the plurality of sensor elements which are in use.”

Equally important is the fact that the Office has not considered the various steps of the method of claim 22. For example, Wendt is silent as to “introducing a sensor arrangement in the device and positioning the sensor arrangement in a measurement position; executing measurements using the sensor arrangement; and removing the sensor arrangement from the device,” as recited in claim 22. Thus, for at least this additional reason, claim 22 is patentable over the cited portions of Wendt.

Claim 23 is patentable over the cited portions of Wendt at least by virtue of their dependency from claim 22 and for the additional features recited therein.

Claim 25 is patentable over the cited portions of Wendt for at least similar reasons as provided above for claim 1 and for the features recited therein. For example, the cited portions of Wendt do not disclose, teach or suggest a sensor arrangement comprising, *inter alia*, "a plurality of sensor elements, each sensor element provided as an integrated circuit in the substrate; and electronic circuitry comprising: i) a processing circuit arranged on the substrate and connected to at least one of the sensor elements, the processing circuit being configured to process a signal generated by the at least one of the sensor elements; ii) an input/output interface arranged on the substrate and connected to the processing circuit; and iii) a power supply unit arranged on the substrate and configured to supply operating power to a processing circuit associated with one or more of the plurality of sensor elements which are in use."

Claims 26-34 are patentable over the cited portions of Wendt at least by virtue of their dependency from claim 25 and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-12, 14-20, 22, 23 and 25-34 under 35 U.S.C. § 102(b) based on Wendt are respectfully requested.

Applicant has addressed the Examiner's rejection and respectfully submits that the application is in condition for allowance. A notice to that effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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